

Dr. Azhar Rasul
Assistant Professor
Government College University Faisalabad

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Short Biography: Dr. Azhar Rasul is an Assistant Professor at Faculty of Life Sciences, Government College University Faisalabad. He received MSc and M. Phil degree in Biology from Bahauddin Zakariya University, Multan, Pakistan. He obtained PhD fellowship jointly awarded by Ministry of Education (MOE), Pakistan and China Scholarship Council (CSC), China and completed his Ph.D. in Cell Biology (Chemical Cancer Biology) from Northeast Normal University, China. He later received China postdoctoral fellowship in 2012, Japanese Society for Promotion of Science (JSPS) Postdoctoral fellowship in 2013, and subsequently Tokyo Biochemical Research Foundation (TBRF) fellowship in 2015. He has published over **82 peer-reviewed articles** with **cumulative impact factor over 166** and with over **1472 citations**. He also has published four book chapters. He has presented several invited talks at National and International level. He has attended more than **20 International conferences** in Japan, China, South Korea, Dubai, Sri Lanka, Qatar, Turkey, Thailand, Malaysia and France. Under his supervision, thirteen MPhil students completed their research work. Three PhD and four MPhil students are currently working under his supervision. He has obtained several national and international research grants (**HEC-Pak Turk Mobility Grant, ISSESCO RG, HEC-NRPU RG(s), The Nagai Foundation Tokyo RG(s) and COMSTECH-TWAS RG**). His lab is actively engaged in interdisciplinary research on novel tumor biomarkers, cancer-related health disparities, and identification of non-toxic anti-cancer compounds for various hallmarks of cancer (cancer stem cells, cancer cell metabolism, and tumor hypoxia) from natural sources. He is reviewer and editorial board member of several well-reputed journals.

Personal information

First name/ Surname	Azhar Rasul
Permanent Address	Chah Sheran Walla, Haider Abad (Thal), Tehsil Mankera, Distt. Bhakkar, Punjab Pakistan
Postal Address	C/o Khawar Autos Haider Abad (Thal), Tehsil Mankera, Distt. Bhakkar, Punjab Pakistan
Telephone(s)	+92-321-8409546
Nationality	Pakistan
ID Card	38104-0840702-3
Passport No.	AP9807022
Current Residence	Faisalabad, Pakistan
Date of birth	01-01-1983
Gender	Male
Marital Status	Married
Children	2 (Son and Daughter)

Education

Institution: Northeast Normal University, Changchun, China

Degree: PhD (Doctor of Philosophy), Major: Cell Biology (Chemical Cancer Biology)

Thesis Title: Isolation, structure elucidation, and evaluation of anti-gastric cancer activity of natural compounds from Traditional Chinese Medicinal herbs and their molecular mechanisms

Date of Graduation: 2012-07-01

Institution: Bahauddin Zakariya University, Multan, Pakistan

Degree: M. Phil (Master of Philosophy), Major: Animal Sciences

Thesis Title: Proximate analysis of female population of wild feather back fish (*Notopterus notopterus*) in relation to body size and condition factor

Date of Graduation: 2008-08-31

Institution: Bahauddin Zakariya University, Multan, Pakistan

Degree: M. Sc (Master of Science), Major: Animal Sciences

Thesis Title: Economics and Marketing of commercial food fishes of Southern Punjab Pakistan

Date of Graduation: 2005-07-31

Institution: Punjab University, Lahore, Pakistan

Degree: B. Sc (Bachelor of Science), Major: Pre-medical group

Date of Graduation: 2002-06-30

Research/Employment History

- (July, 2012-November, 2013): Post-doctoral Research Fellowship. Changchun Institute of Applied Chemistry, Chinese Academy of Sciences, Changchun, China
- (October, 2013-October, 2014): Assistant Professor, Sub-campus Bhakkar, University of Sargodha, Punjab, Pakistan
- (November, 2013-November, 2015): JSPS Post-doctoral Research Fellow at Antibiotics Lab. Chemical Biology Department, RIKEN, Japan
- (December, 2015-March, 2016): Special Postdoctoral Research (SPDR) at Chemical Biology Research Group. Chemical Biology Department, RIKEN, Japan
- (April, 2016-March, 2017): TBRF (Tokyo Biochemical Research Foundation) Postdoctoral Fellow at

Chemical Biology Research Group. Chemical Biology Department, RIKEN, Japan

- (April, 2017- Present): Assistant Professor, Faculty of Science and Technology, Government College University Faisalabad (GCUF), Pakistan
- (October 30 – November 15): Visiting Faculty, Department of Medical Biology, Nigde Omer Halisdemir University, Nigde Turkey

Fellowships / Awards (17)

- Awardee of Genetic Engineering and Biotechnology (CIGB) and the Cuban Society of Pharmacology Joint Fellowship for event Animal Models and Preclinical Research, AniMod 2019, Varadero, Cuba, 5th-9th May, **2019**.
- Awardee of “Mufti Mehmood Award” on the behalf of “Education and Science Committee” on December 9, **2018**.
- Awardee of Biochemistry and Molecular Biology (BMB), Thailand. General Fellowship, 2018 to attend IUBMB Advanced School on theme “Frontiers in Infection-Associated Cancer” on June 17–20, **2018**.
- Awardee of HEC Pakistan Travel Grant to present a research Paper in ICGEB-NASSL "South Asian Biotechnology Conference 2018 - SABC 2018" in Colombo, Sri Lanka on March 28-30, **2018**.
- Awardee of International Union of Biochemistry and Molecular Biology 2018 (IUBMB), Young Scientist Program (YSP) Fellowship, **2018**.
- Awardee of 2nd Position and Prize for Poster Presentations during A Day Long International Conference: Recent Challenges and Chemical Sciences, **2017** held at Bahauddin Zakariya University, Multan, Punjab Pakistan
- Awardee of Travel grant for Young Talent Forum for the **2016** Digestive Disease Week of Guangzhou, China
- Awardee of scholarship for "Rethinking Cancer" Workshop organized by Ross Cagan; 20 – 23 November **2016**, Wiston House, UK- (No availed)
- Awardee TBRF (Tokyo Biochemical Research Foundation) Postdoctoral Fellow at RIKEN, **2015**, Japan.
- HEC approved PhD Research Supervisor since **2014**
- Awardee of JSPS (Japan Society for Promotion of Sciences) Postdoctoral Research Fellow at RIKEN, **2013**, Japan.

- Awardee of Postdoctoral Research Fellow at CIAC Chinese Academy of Sciences, **2012**, China.
- Awardee of Scholarship and Travel grant (sponsored by F. Hoffman La Roche) WIN Symposium **2012**, Paris France.
- Awardee of an incentive award on research publications during PhD studies by Central Research Laboratory of Bethune Second Hospital, Jilin University Changchun, China, **2012**.
- Awardee of an overseas PhD scholarship in China from Ministry of Pakistan and China Scholarship Council of China (PhD in Natural and Basic Sciences in China, **2008**).
- Awardee of merit scholarship by Bahauddin Zakariya University for M. Phil. Studies, **2006**.
- Awardee of an Indigenous PhD scholarship (Phase IV, **2006**) from Higher Education Commission of Pakistan (Not availed).

Participation in national or international conferences/ seminars/ symposiums

1. Certificate of Participation in “South Asian Biotechnology Conference (SABC-2018)”, Colombo, Sri Lanka, March 28-30, 2018.
2. Certificate of Participation in “1st International Symposium on Pharmaceutical Sciences”, Faculty of Pharmaceutical Sciences, Government College University Faisalabad, April 23, 2018.
3. Certificate of Participation in “International Conference on Innovation and Commercialization in Biotechnology ICICB”, organized by PCSIR in Lahore, April 25-26th 2018.
4. Certificate of Attendance of 24th IUBMB Congress held in Seoul, Korea, 4-8th June, 2018
5. Certificate of Attendance of IUBMB Advanced School 2018: Frontiers in Infection-Associated Cancer Chulalongkorn University, Bangkok, Thailand, 17-20 June, 2018.
6. Certificate of Participation in 1st International Conference on Applied Zoology (ICAZ-2018), Government College University Faisalabad, October 10-11, 2018.
7. Certificate of Attendance of “International Congress on Biological and Medical Sciences” October 31st -November 3rd 2018 in Nigde, Turkey.
8. Certificate of Participation in 1st International Conference on Emerging Trends in Zoology (ICETZ-2017), December 8-9, 2017, Department of Zoology, University of Sargodha, Sargodha.
9. Certificate of Participation in “International Seminar on Challenges & Opportunities for Aquaculture and Animal Feed Industry” Department of Zoology, Government College University Faisalabad, December 20, 2017.

10. Certificate of Participation in “A Day Long International Conference on Recent Challenges and Chemical Sciences”, BZU, Multan, Pakistan, December 22nd, 2017.
11. Certificate of Participation in “Two days 4th National Palaeontology Seminar” Department of Zoology, Government College University Faisalabad, December 13, 2017.
12. 11th Chinese conference on Cell Biology & Xi'an International Conference on Cell Biology 2009, Xi'an, China
13. International Symposium on Channelotherapy and New Strategies of Drug Discovery 2010, Changchun, China
14. International Workshop on cancer Systems Biology (ICSB). 2011, Jilin University Changchun, China
15. 9th International Symposium on the Chemistry of Natural Compounds, 2011 Urumqi, China
16. 4th International cancer control congress, 2011 Seoul, Korea
17. 4th International WIN Symposium. **2012**, Paris France
18. 3rd International Conference on Stem Cells and Cancer (ICSCC-2012): Proliferation, Differentiation and Apoptosis. **2012**, New Delhi, India

Participation in national or international training workshop

1. Certificate of Participation in One Day Workshop on “ Cell Culture & Protein Biology Innovations” Department of Bioinformatics and Biotechnology, Government College University Faisalabad, February 20, 2018.
2. One-day workshop on “Biosafety and Biosecurity for Young researchers” organized by Department of Zoology, GCUF and National training and research laboratories on 26th March, **2018**.
3. One-day workshop on “Bioassays for Exploration of Bioactives” organized by Department of Biochemistry, University of Agriculture, Faisalabad on 21st March, **2018**.
4. 2-Days Workshop on Flowcytometry: Principles, Applications and Data Analyses at Alpha Genomics Private Limited Islamabad on November 1-2, **2017**
5. Training course on diagnosis of viral diseases at NIAB, Faisalabad on September 17-21, **2017**
6. 15Th Hand on training on modern biotechnology techniques at NIBGE, Faisalabad on April 17-22, **2017**

Technical skills and competences

- ❖ Cell Culture;
- ❖ Primary Cell Culture;
- ❖ High Through Screening;
- ❖ Flow cytometry (analysis of apoptosis, MMP, ROS, and cell cycle);
- ❖ In vitro Assays;
- ❖ Native Electrophoresis;
- ❖ SDS-PAGE and Western Blotting;
- ❖ Co- Immunoprecipitation;
- ❖ Fluorescence Microscopy;
- ❖ Stable and transient transfection;
- ❖ Transformation; Small and Large Scale Plasmid Purification;
- ❖ Immunostaining;
- ❖ Luciferase/ gene reporter assay;
- ❖ Primer designing;
- ❖ Knock-out mice handling, mice-related work such as mouse embryonic fibroblast culture and immunohistochemistry;
- ❖ Target identification techniques such as DARTS, Cellular Thermal Shift Assay (CETSA) and affinity chromatography;
- ❖ Recombinant protein expression and purification;
- ❖ Bioactive compound isolation by HPLC and library construction

Computer skills and competences

- MS word
- Excel
- Adobe Photoshop
- SPSS
- Endnotes

Publications and Presentation List

Total Publications: 82;

Total Impact Factor: ~166;

Total Citations: 1472

H-Index: 22;

i10-Index: 30

List of Published Papers

1. Sana Aslam, Fang Wang, Matloob Ahmad, Ameer Fawad Zahoor, Asim Mansha, [Azhar Rasul](#) and Liwu Fu, Benzothiazine based acetohydrazides and acetamides as anticancer agents Pakistan Journal of Pharmaceutical Sciences (PJPS). 32(6) 2795-2800, IF: 0.84. 2019.
2. Ali Imran, Lei Xiao, Waseem Ahmed, Haseeb Anwar, [Azhar Rasul](#), Muhammad Imran, Nimra Aziz, Aroona Razzaq, Muhammad Umair Arshad, Asghar Shabir, Jose-Luis Gonzalez de Aguila, Tao Sun, Ghulam Hussain. Foeniculum vulgare (Fennel) promotes functional recovery and ameliorates oxidative stress following a lesion to the sciatic nerve in mouse model. Journal of Food Biochemistry, 2019, doi: 10.1111/jfbc.12983.
3. Syed Makhdoom Hussain, Anam Khalid, Muhammad Mudassar Shahzad, [Azhar Rasul](#), Afia Muhammad Akram, Nisar Ahmad, Fatima Khalid. Effect of dietary supplementation of selenium nanoparticles on growth performance and nutrient digestibility of common carp (*Cyprinus carpio* Linnaeus, 1758) fingerlings fed sunflower meal based diet. Indian Journal of Fisheries, 66(3): 53-59, 10.21077/ijf.2019.66.3.87585-07, 2019, IF: 0.275.
4. Rabia Akhtar, Ameer Fawad Zahoor, [Azhar Rasul](#), Matloob Ahmad, Muhammad Naveed Anjum, Muhammad Ajmal and Zohaib Raza. Design, synthesis, in-silico study and anticancer potential of novel n-4-piperazinyl-ciprofloxacin-aniline hybrids. Pakistan Journal of Pharmaceutical Sciences (PJPS). 32(5) 2215-2222, IF: 0.84. 2019.
5. Muhammad Asif Latif, Farhat Jabeen, Muhammad Ali, [Azhar Rasul](#), Shahbana Naz and Muhammad Akram. Neurotoxic effects of titanium dioxide nanoparticles on the brain of male sprague dawley rats Pakistan Journal of Pharmaceutical Sciences (PJPS). 32(5) 2311-2316 IF: 0.84. 2019.
6. Shahid Shah, Akhtar Rasul, [Azhar Rasul](#), Malik Saadullah, Muhammad Asad Abrar, Zunaira Afzal, Muhammad Rashid Khan, Muhammad Hanif, Ghulam Abbas, & Muhammad Anwaar-ul-hassan Chughtai. Sensitive and inexpensive hplc method for combined monitoring of metformin and sitagliptin in plasma. Latin American Journal of Pharmacy 38 (9): 1874-8, 2019, IF: 0.401.
7. Syed Makhdoom Hussain, Anam KHALID, Muhammad Mudassar Shehzad, [Azhar Rasul](#), Afia

Muhammad Akram, Nisar Ahmad, Fatima Khalid, Effect of Selenium nano-particles supplementation on growth performance and nutrient digestibility of *Cyprinus carpio* fingerlings fed sunflower meal based diet. Indian Journal of Fisheries, 2019, IF: 0.275, Accepted.

8. Maleeha Manzoor, Qurat-ul-Ain Ahmad, Ambreen Aslam, Faiza Jabeen, [Azhar Rasul](#), Peer M. Schenk, Javed Iqbal Qazi, Mixotrophic cultivation of *Scenedesmus dimorphus* in sugarcane bagasse hydrolysate, Environmental Progress, IF: 1.659, 2019, doi: 10.1002/ep.13334.
9. Ammara Riaz, Bisma Saleem, Ghulam Hussain, Iqra Sarfraz, Bushra Nageen, Rabia Zara, Maleeha Manzoor and [Azhar Rasul](#)*, Eriocalyxin B biological activity: a review on its mechanism of action. Natural Product Communications, IF: 0.88, 2019, DOI: 10.1177/1934578X19868598.
10. Rabia Batool, [Azhar Rasul](#)*, Ghulam Hussain, Iqra Sarfraz, Muhammad Mateen Tahir, Arif Hussain, Muhammad Shahbaz, Zinayyera Subhani, Zeliha Selamoglu. Carica papaya: as a potent herbal pharmacological plant. Tropical Journal of Pharmaceutical Research. IF: 0.5, 2019, Accepted.
11. Vee May Dianne Kua, [Azhar Rasul](#), Sreenivasan Sasidharan, Bilal Rasool, Tahira Younis, Ngit Shin Lai, Methadone hydrochloride and leukemia cells: effects on cell viability, DNA fragmentation, and apoptotic proteins expression level, Pakistan Journal of Pharmaceutical Sciences (PJPS). 32(4) 1797-1803 IF: 0.84. 2019.
12. Tian Qin, [Azhar Rasul](#), Ayesha Sarfraz, Iqra Sarfraz, Ghulam Hussain, Haseeb Anwar, Ammara Riaz, Sitong Liu, Wei Wei, Jiang Li, Xiaomeng Li, Salvianolic acid A & B: potential cytotoxic polyphenols in battle against cancer via targeting multiple signaling pathways. International Journal of Biological Sciences. IF: 4.057, 2019, 10.7150/ijbs.37467.
13. Muqaddas Masood, [Azhar Rasul](#), Iqra Sarfraz, Sitong Liu, Xintong Liu, Wei Wei, Jiang Li, Xiaomeng Li. Hispolon induces apoptosis against prostate DU145 cancer cells via modulation of mitochondrial and STAT3 pathways. Pakistan Journal of Pharmaceutical Sciences (PJPS). IF: 0.84. 2019, Accepted.
14. Ghulam Hussain, Jing Wang, [Azhar Rasul](#), Haseeb Anwar, Muhammad Qasim, Shamaila Zafar, Nimra Aziz, Aroona Razzaq, Rashad Hussain, Jose-Luis Gonzalez de Aguilar and Tao Sun, Current Status of Therapeutic Approaches Against Peripheral Nerve Injuries: A Detailed Story from Injury to Recovery. International Journal of Biological Sciences (IF: 4.057), 2019, 10.7150/ijbs.35653.
15. Muhammad Mateen Tahir, [Azhar Rasul](#), Ammara Riaz, Rabia Batool, Bushra Nageen, Muhammad Adnan, Iqra Sarfraz, Muhammad Adnan, Ayesha Sadiqa, Zeliha Selamoglu. *Ficus benghalensis*: A plant with

potential pharmacological activities: from tradition to pharmacy. Tropical journal of Pharmaceutical Research. IF: 0.5, 2019, Accepted.

16. Shazia Anwer Bukhari, Aysha Yasmin, Muhammad Asif Zahoor, Ghulam Mustafa, Iqra Sarfraz, [Azhar Rasul](#). Secreted Frizzled-Related Protein 4 and its Implication in Obesity and Type-2 Diabetes. IUBMB Life. IF: 3.236, 2019, 1-10, doi: 10.1002/iub.2123.
17. Farzana Sharif, [Azhar Rasul](#), Asma Ashraf, Ghulam Hussain, Tahira Younis, Iqra Sarfraz, Muhammad Asrar Chaudhry, Xin Ying Ji, Zeliha Selamoglu, Muhammad Ali. Phosphoglycerate mutase 1 in Cancer: A Promising Target for Diagnosis and Therapy. IUBMB Life. IF: 3.236, 2019, 1-10, doi: 10.1002/iub.2100.
18. [Azhar Rasul](#), Ali AA Al-shawi, Shoaib Ahmad Malik, Haseeb Anwar, Bilal Rasool, Aroona Razzaq, Nimra Aziz, Syed Kashif Shahid Kamran, Iqra Sarfraz, Asghar Shabbir, Zeliha Selamoglu and Ghulam Hussain. *Neurada procumbens* promotes functions regain in a mouse model of mechanically induced sciatic nerve injury. Pakistan Journal of Pharmaceutical Sciences (PJPS). IF: 0.84. 2019, 32(4):1761-1766.
19. Ghulam Hussain, Jia Huang, [Azhar Rasul](#), Haseeb Anwar, Ali Imran, Javeria Maqbool, Aroona Razzaq, Nimra Aziz, Ehtisham ul Haq Makhdoom, Muhsin, Konuk, and Tao Su. Putative Roles of Plant-Derived Tannins in Neurodegenerative and Neuropsychiatry Disorders: An Updated Review Molecules (IF: 3.098), 2019, doi: 10.3390/molecules24122213.
20. Wei Wei, [Azhar Rasul](#), Ayesha Sadiqa, Iqra Sarfraz, Ghulam Hussain, Bushra Nageen, Xintong Liu, Nobumoto Watanabe, Zeliha Selamoglu, Muhammad Ali, Xiaomeng Li and Jiang Li, Curcumol: From plant roots to cancer roots. International Journal of Biological Sciences (IF: 4.057), 2019, 15(8) 1600-1609. doi: 10.7150/ijbs.34716.
21. Dongjun Jiang, [Azhar Rasul](#), Rabia Batool, Iqra Sarfraz, Ghulam Hussain, Muhammad Mateen Tahir, Tian Qin, Nobumoto Watanabe, Zeliha Selamoglu, Muhammad Ali, Xiaomeng Li and Jiang Li. Potential anticancer properties and mechanisms of action of Formononetin. BioMed Research International. 2019. IF. 2.583. 2019, 10.1155/2019/5854315.
22. Syed Makhdoom Hussain, Nisar Ahmad, [Azhar Rasul](#), Muhammad Mudassar Shahzad, Muhammad Latif, Muhammad Zubair ul Hassan Arsalan, Muhammad Umair, Hafiza Hina Shafqat. Efficacy of nano-CR particles supplemented sunflower meal based diets on growth performance, digestibility and haematology of Catla catla fingerlings. Pakistan Journal of Zoology. 2019.

23. Nimra Aziz, [Azhar Rasul](#), Shoaib Ahmad Malik, Haseeb Anwar, Ali Imran, Aroona Razzaq, Arslan Shaukat, Syed Kashif Shahid Kamran, Jose-Luis Gonzalez de Aguilar, Tao Sun and Ghulam Hussain. Supplementation of *Cannabis sativa* L. leaf powder accelerates functional recovery and ameliorates haemoglobin level following an induced injury to sciatic nerve in mouse model. Pakistan Journal of Pharmaceutical Sciences (PJPS). 2019. 32 (2) 785-792. IF: 0.84.
24. Imran Mukhtar, Haseeb Anwar, Ghulam Hussain, [Azhar Rasul](#), Syed Ali Raza Naqvi, Muhammad Naeem Faisal, Imtiaz Mustafa, Saima Malik, Arslan Shaukat, Osman Asghar Mirza and Muhammad Umar Sohail. Detection of paracetamol as substrate of the gut microbiome. Pakistan Journal of Pharmaceutical Sciences (PJPS). 2019. 32 (2) 751-757. IF: 0.84.
25. Nasim Akhtar, Uswa Hussain, Muhammad Zulhussnain, Muhammad Asif Zahoor, [Azhar Rasul](#), Humera Naz Majeed, Rizwan Munir, Kanwal Rania, Muhammad Kashif Zahoor. Insecticidal and genotoxic activities of some indigenous weed plant extracts in Fruit fly *Drosophilla melanogaster*. Arznei-Gewurzpfla, 23 (1): 10-16. IF: 0.161.
26. Shakeel Ahmad, Saquib Jalil, Sumera Zaib, Sana Aslam, Matloob Ahmad, [Azhar Rasul](#), Muhammad Nadeem Arshad, Sadia Sultan, Abdul Hameed, Abdullah M. Asiri, Jamshed Iqbal. Synthesis, X-ray crystal and monoamine oxidase inhibitory activity of 4,6-dihydrobenzo[c]pyrano[2,3-e][1,2]thiazine 5,5-dioxides: In vitro studies and docking analysis. European Journal of Pharmaceutical Sciences. 2019. IF: 3.773.
27. Ghulam Hussain, Jing Wang, [Azhar Rasul](#), Haseeb Anwar, Ali Imran, Muhammad Qasim, Shamaila Zafar, Syed Kashif Shahid Kamran, Aroona Razzaq, Nimra Aziz, Waseem Ahmad, Asghar Shabbir, Javed Iqbal, Shahid Mahmood Baig, Tao Sun, Role of Cholesterol and Sphingolipids in Brain Development and Neurological Diseases, Lipids in Health and Disease, **2018**; DOI: org/10.1186/s12944-019-0965-z, IF: 2.663.
28. Ghulam Hussain, Jing Wang, [Azhar Rasul](#), Haseeb Anwar, Ali Imran, Muhammad Qasim, Shamaila Zafar, Syed Kashif Shahid Kamran, Aroona Razzaq, Nimra Aziz, Waseem Ahmad, Asghar Shabbir, Javed Iqbal, Shahid Mahmood Baig, Tao Sun, Lipids as biomarkers of brain diseases, Critical Reviews in Food Science and Nutrition, **2018**; DOI: 10.1080/10408398.2018.1529653, IF: 6.202.
29. Iqra Sarfraz, [Azhar Rasul*](#), Ghulam Hussain, Syed Makhdoom Hussain, Farhat Jabeen, Zeliha Selamoglu, Muhammad Ali, Malic Enzyme 2 as a Potential Therapeutic Drug Target for Cancer,

IUBMB Life, **2018**; 70(11):1076-1083. IF: 3.236 (*As a corresponding Author).

30. Faiza Jabeen, Ali Hussain, Maleeha Manzoor, Tahira Younis, **Azhar Rasul**, Javed Iqbal Qazi, Potential of bacterial chitinolytic, *Stenotrophomonas maltophilia*, in biological control of termites, Egyptian Journal of Biological Pest Control, **2018**; (2018) 28:86 doi.org/10.1186/s41938-018-0092-6
31. Tahira Younis, Mohammad Imran Khan, Muhammad Rashid Khan, **Azhar Rasul**, Muhammad Majid, Vaqar Mustafa Adhami, Hasan Mukhtar. Nummularic acid, a triterpenoid, from the medicinal plant *Fraxinus xanthoxyloides*, induces energy crisis to suppress growth of prostate cancer cells. Molecular Carcinogenesis, **2018**; 57(10):1267-1277. IF: 4.185
32. Asma Muhammad Yar, Ghanva Zaman, Annam Hussain, Yan Changhui, **Azhar Rasul**, Abrar Hussain, Zhu Bo, Habib Bokhari, Muhammad Ibrahim, Comparative genome analysis of two *Mycobacterium tuberculosis* strains from Pakistan: insights into drug resistance, virulence and niche adaptation. Evolutionary Bioinformatics, **2018**; 14:1176934318790252. doi: 10.1177/1176934318790252. IF: 1.877
33. Mustafa Sevindik, **Azhar Rasul***, Ghulam Hussain, Haseeb Anwar, Muhammad Kashif Zahoor, Iqra Sarfraz, Kashif Shahid Kamran, Hasan Akgul, Ilgaz Akata, Zeliha Selamoglu, Determination of Anti-oxidative, Anti-microbial activity and heavy metal contents of *Leucoagaricus leucothites*. Pakistan Journal of Pharmaceutical Sciences (PJPS). **2018**; 31(5):2163-2168. IF: 0.84 (*As a corresponding Author).
34. Tahira Younis, **Azhar Rasul**, Faiza Jabeen, Ghulam Hussain, Javeria Altaf, Iqra Sarfraz, Muhammad Ali, Ameliorating role of methanolic leaves extract of *Fraxinus xanthoxyloides* against CCl₄-challenged nephrotoxicity in rats. Pakistan Journal of Pharmaceutical Sciences (PJPS). **2018**; 31(4):1475-1484. IF: 0.84
35. Maria Javed, **Azhar Rasul***, Ghulam Hussain, Farhat Jabeen, Bilal Rasool, Ammara Riaz, Ghazala Kaukab, Muhammad Ali, Harmine and its derivatives: Biological activities and therapeutic potential in human diseases. Bangladesh Journal of Pharmacology (BJP). **2018**; 13: 203-213. IF: 0.77 (*As a corresponding Author).
36. Ghulam Hussain, **Azhar Rasul**, Haseeb Anwar, Muhammad Umar Sohail, Aroona Razzaq, Nimra Aziz, Asghar Shabbir, Longbin Zhang, Tao Sun. Muhammad Ali. Role of plant-derived flavonoids and their mechanism attenuation in Alzheimer's and Parkinson's diseases: An update of recent data. Molecules. **2018**; 23, 814, doi:10.3390/molecules23040814. IF: 2.861

37. Ghulam Hussain, **Azhar Rasul**, Haseeb Anwar, Nimra Aziz, Aroona Razzaq, Wei Wei, Muhammad Ali, Jiang Li, Xiaomeng Li, Role of plant derived alkaloids and their mechanism in neurodegenerative disorders. *International Journal of Biological Sciences*. **2018**; 14(3), 341-357. IF: 3.873
38. Bushra Nageen, Iqra Sarfraz, **Azhar Rasul***, Ghulam Hussain, Fariha Rukhsar, Somia Irshad, Ammara Riaz, Zeliha Selamoglu, Muhammad Ali, Eupatilin: a natural pharmacologically-active flavone compound with its wide-ranging applications. *Journal of Asian Natural Product Research (JANPR)*, **2018**; Accepted. IF: 1.07
39. Muhammad Zafar, Iqra Sarfraz, **Azhar Rasul***, Faiza Jabeen, Khizar Samiullah, Ghulam Hussain, and Muhammad Ali. Tubeimoside-1, triterpenoid saponin, as a potential natural cancer killer. *Natural Product Communication*. **2018**; 13(5), 643-650. IF: 0.88 (***As a corresponding Author**).
40. Ammara Riaz, **Azhar Rasul***, Ghulam Hussain, Muhammad Kashif Zahoor, Farhat Jabeen, Zinayyera Subhani, Tahira Younis, and Muhammad Ali. Astragalin: A bioactive phytochemical with potential therapeutic activities. *Advances in Pharmacological Sciences*. **2018**; Volume 2018, Article ID 9794625, 15 pages. <https://doi.org/10.1155/2018/9794625>. (***As a corresponding Author**)
41. Iqra Sarfraz, **Azhar Rasul***, Farhat Jabeen, Muhammad Kashif Zahoor, Muhammad Arshad, Muhammad Ali, Fraxinus: a plant with versatile pharmacological and biological activities. *Evidence Based Complementary Alternative Medicine (eCAM)*. **2017**; doi.org/10.1155/2017/4269868. IF: 1.740 (***As a corresponding Author**)
42. Hui Qin, **Azhar Rasul**, Xin Li, Muqaddas Masood, Guang Yang, Na Wang, Wei Wei, Xi He, Nobumoto Watanabe, Jiang Li, Xiaomeng Li, CD147-induced cell proliferation is associated with Smad4 signal inhibition. *Experimental Cell Research*. **2017**; In Press. doi: 10.1016/j.yexcr.2017.07.003. IF: 3.546
43. Chunwa Jiang, Muqaddas Masood, **Azhar Rasul**, Wei Wei, Ya Wang, Muhammad Ali, Jiang Li, Xiaomeng Li, Altholactone inhibits constitutive NF- κ B and STAT3 activation and induces reactive oxygen species-mediated apoptosis in prostate cancer DU145 cells. *Molecules*. **2017**; 22(2), 240. doi: 10.3390/molecules22020240. IF: 2.861
44. Xiaoyan Ma, Fan Yang, Shuli Yang, **Azhar Rasul**, Ting Li, Lianlian Liu, Min Kong, Dongmei Guo, Tonghui Ma. Number and distribution of myofibroblasts and α -smooth muscle actin expression levels in fetal membranes with and without gestational complications. *Molecular Medicine Reports*. **2015**;

12(2): 2784-92. IF: 1.692.

45. Di W, Khan M, **Azhar Rasul**, Sun M, Sui Y, Zhong L, Yang L, Zhu Q, Feng L, Ma T. Isoalantolactone inhibits constitutive NF- κ B activation and induces reactive oxygen species-mediated apoptosis in osteosarcoma U2OS cells through mitochondrial dysfunction. *Oncology Reports*. **2015**; doi: 10.3892/or.2014.3368. IF: 2.662.
46. **Azhar Rasul**, Bin-Ji Zhao, Jun Liu, Bao Liu, Jia-Xin Sun, Jiang Li, Xiao-Meng Li. Molecular mechanisms of casticin action: An update on its antitumor functions. *Asian Pac J Cancer Prev*. **2014**; 15(21): 9049-9058. IF: 1.50
47. **Azhar Rasul**, Xiaoyan Shen, Bingyu Wang, Bao Liu, Xiaomeng Li, Jilin Tang. Tubeimoside-1 upregulates p21 expression and induces apoptosis and G2/M phase cell cycle arrest in human bladder cancer T24 cells. *Bangladesh Journal of Pharmacology*. **2014**; 9(4): 595-603. IF: 1.052.
48. **Azhar Rasul**, Jun Di, Faya Martin Millimouno, Mahadev Malhi, Ichiro Tsuji, Muhammad Ali, Jiang Li, Xiaomeng Li, Reactive Oxygen Species Mediate Isoalantolactone-Induced Apoptosis in Human Prostate Cancer Cells. *Molecules*, **2013**; 18(8): 9382-9396. IF: 2.861.
49. Zhenyu Chen, **Azhar Rasul**, Chaoyue Zhao, Faya Martin Millimouno, Ichiro Tsuji, Takaki Yamamura, Rehana Iqbal, Mahadev Malhi, Xiaomeng Li, Jiang Li. Antiproliferative and apoptotic effects of pinocembrin in human prostate cancer cells. *Bangladesh Journal of Pharmacology*. **2013**; 8(3): 255-262. IF: 0.616
50. Nanyang Yang, Bing Zhao, **Azhar Rasul**, Hui Qin, Jiang Li, Xiaomeng Li, PIAS1 modulated Smad2/4 complex activation is involved in zinc-induced cancer cell apoptosis. *Cell Death & Disease*. **2013**; doi: 10.1038/cddis.2013.333. IF: 5.965.
51. **Azhar Rasul**, Muhammad Khan, Muhammad Ali, Jiang Li, Xiaomeng Li, Targeting apoptosis pathways in cancer with alantolactone and isoalantolactone. *Scientific World Journal*. **2013**; doi: 10.1155/2013/248532. IF: 1.7.
52. **Azhar Rasul**, Faya Martin Millimouno, Wafa Ali Eltayb, Muhammad Ali, Jiang Li, Xiaomeng Li, Pinocembrin: a novel natural compound with versatile pharmacological and biological activities. *Biomed Research International*. **2013**; doi: 10.1155/2013/379850. IF: 2.476.
53. **Azhar Rasul**, Bo Yu, Yang Jing Bo, Muhammad Khan, Muhammad Ali, Tonghui Ma. Isoalantolactone, a sesquiterpene lactone, induces apoptosis in SGC-7901 cells via mitochondrial and

phosphatidylinositol 3-kinases/Akt signaling pathways. Archives of Pharmacal Research. **2013**; 36(10): 1262-9. IF: 2.324

54. **Azhar Rasul**, Rui Bao, Mahadev Malhi, Bing Zhao, Ichiro Tsuji, Xiaomeng Li, Jiang Li. Induction of apoptosis by costunolide in bladder cancer cells is mediated through ROS generation and mitochondrial dysfunction. Molecules. **2013**; 18(2): 1418-33. IF: 2.861.
55. Wei Wei, Jun Di, **Azhar Rasul**, C Zhao, Faya Martin Millimouno, Ichiro Tsuj, Furhan Iqal, Mahadev Malhi, Xiaomeng Li. Jiang Li. Dracorhodin perchlorate induces apoptosis in bladder cancer cells through Bcl-2, Bcl-XL, survivin down-regulation and caspase-3 activation. Bangladesh Journal of Pharmacology. **2013**; 8(3), 276-282. IF: 1.052.
56. **Azhar Rasul**, Jinmei Liu, Ying Liu, Faya Martin Millimouno, Xiaowan Wang, Ichiro Tsuji, Takaki Yamamura, Jiang Li, Xiaomeng Li. Eriocalyxin B inhibits proliferation and induces apoptosis through downregulation of Bcl-2 and activation of caspase-3 in human bladder cancer cells. Bangladesh Journal of Pharmacology. **2013**; 8(2): 116-123. IF: 0.616
57. Yingchao Zhang, **Azhar Rasul**, Xiaomeng Li, Mahadev Malhi, Xuedong Fang, Lijuan Wang, Yu Wang. Lentivirus-mediated shRNA targeting decoy receptor 3 (DcR3) inhibits proliferation and augments apoptosis in pancreatic cancer Capan-1 cells. African Journal of Pharmacy and Pharmacology. **2013**; 7(5): 203-210. IF: 0.60
58. Furhan Iqbal, RM Khattak, S Ozubek, MNK Khattak, **Azhar Rasul**, Muhammad Aktas. Application of the Reverse Line Blot Assay for the Molecular Detection of *Theileria* and *Babesia* sp. in Sheep and Goat Blood Samples from Pakistan. Iranian Journal of Parasitology. 8(2): **2013**; 289–295. IF: 0.758
59. Min Kong, Lianlian Liu, Fei Yi, Muhammad Khan, **Azhar Rasul**, Fan Yang, Xiaoyan Ma, Tonghui Ma. Prevalence of infarct and villous clumps, and the expression of α -smooth muscle actin in the placental basal plate in severe preeclampsia. Molecular Medicine Reports. **2012**; 8(4): 1067-73. IF: 1.692.
60. Muhammad Khan, Yinghong Xiao, Bo Yu, Nan Wang, **Azhar Rasul**, Fei Yi, Longfei Yang, Hong Yang, Tonghui Ma. Artabotryside A, a constituent from *Descurainia sophia* (L.) induces cell death in U87 glioma cells through apoptosis and cell cycle arrest at G2/M phase. Journal of Medicinal Plants Research. **2012**; 6(21): 3754-3765. IF: 1.18
61. **Azhar Rasul**, Saima Parveen, Tonghui Ma. Costunolide: A novel anti-cancer sesquiterpene lactone. Bangladesh Journal of Pharmacology. 2012; 7(1): 6-13. IF: 0.616

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65. **Azhar Rasul**, Chuan Ding, Xiaomeng Li, Muhammad Khan, Yi Fei, Muhammad Ali, Tonghui Ma, Dracorhodin perchlorate Inhibits PI3K/Akt and NF- κ B Activation, Up-regulates the Expression of p53, and Enhances Apoptosis. *Apoptosis* **2012**; 17(10): 1104-19. IF: 3.833.
66. **Azhar Rasul**, Bo Yu, Zhang Kun, Muhammad Khan, Furhan Iqbal, Tonghui Ma, Hong Yang. Magnolol, a natural compound induces apoptosis of human gastric adenocarcinoma SGC-7901 cells via the mitochondrial and PI3K/Akt signaling pathways. *International J Oncology*. **2012**; 40(4): 1153-61. IF: 3.079
67. **Azhar Rasul**, Bo Yu, Zhang Kun, Muhammad Khan, Hong Yang, Tonghui Ma. Cytotoxic effect of evodiamine in human gastric adenocarcinoma SGC-7901 cells via simultaneous induction of apoptosis and autophagy. *Oncology Report*. **2012**; 27(5): 1481-1487. IF: 2.662.
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69. **Azhar Rasul**, Saima Parveen, Tonghui Ma. Costunolide: A Novel Anti-Cancer Sesquiterpene Lactone (Review). *Bangladesh Journal Pharmacology*. **2012**; 7: 6-13. IF: 1.052.
70. Muhammad khan, Fei Yi, **Azhar Rasul**, Ting Li, Nan Wang, Hongwen Gao, Rong Gao, Tonghui Ma. Alantolactone induces apoptosis in glioblastoma cells via GSH depletion, ROS generation and mitochondrial dysfunction, *IUBMB Life*. **2012**; 64(9): 783-94. IF: 3.141.
71. Muhammad Khan, Yu Bo, **Azhar Rasul**, Ali Al Shawi, Fei Yi, Hong Yang, Tonghui Ma. Jaceosidin

Induces Apoptosis in U87 Glioblastoma Cells through G2/M phase Arrest. Evid Based Complement Alternat Med. **2012**; doi: 10.1155/2012/703034. IF: 1.740.

72. Muhammad Khan, Chuan Ding, [Azhar Rasul](#), Fei Yi, Ting Li, Hongwen Gao, Rong Gao, Lili Zhong, Kun Zhang, Xuedong Fang, Tonghui Ma. Isoalantolactone Induces Reactive Oxygen Species Mediated Apoptosis in Pancreatic Carcinoma PANC-1 Cells. International Journal Biological Sciences. **2012**; 8(4): 533-547. IF: 3.873.
73. Muhammad Khan, Bin Zheng, Fei Yi, [Azhar Rasul](#), Zhuyi Gu, Ting Li, Hongwen Gao, Javed Iqbal Qazi, Hong Yang, Tonghui Ma. Pseudolaric Acid B induces caspase-dependent and caspase-independent apoptosis in U87 glioblastoma cells. Evid Based Complement Alternat Med. **2012**; doi: 10.1155/2012/957568. IF: 1.740.
74. [Azhar Rasul](#), Tonghui Ma, Augmentation of TRAIL-induced apoptosis by Tubeimoside-1 in human gastric cancer cells via inhibition of PI3K/Akt, and NF- κ B signaling pathways. Abstract Published in Annal of Oncology. **2012**. IF: 11.855.
75. Jing Shen, Xiaoyan Ma, Fei Yi, [Azhar Rasul](#), Tonghui Ma. Increased expression levels of vitronectin in maternal-fetal interface of placenta in early-onset severe preeclampsia. Molecular Medicine Reports. **2012**; doi: 10.3892/mmr.2012.1141. IF: 1.692.
76. [Azhar Rasul](#), Runmin Song, Wei Wei, Yoshikazu Nishino, Ichiro Tsuji, Xiaomeng Li, Jiang Li, Tubeimoside-1 inhibits growth via the induction of cell cycle arrest and apoptosis in human melanoma A375 cells. Bangladesh Journal of Pharmacology, **2012**; 7 (3): 150-156. IF: 1.052.
77. RM Khattak, Shah Ali, Muhammad Jahangir, MN Khan, [Azhar Rasul](#), Furhan Iqbal. Prevalence of ectoparasites in wild and domesticated grey (Francolinus pondicerianus) and black partridges (Francolinus francolinus) from Khyber Pakhtoonkhwa Province of Pakistan. Pakistan Journal of Zoology. **2012**; 44 (5), 1239-1244. IF: 0.4.
78. [Azhar Rasul](#), Muhammad Khan, Bo Yu, Tonghui Ma, Hong Yang. Xanthoxyletin, a Coumarin Induces S Phase Arrest and Apoptosis in Human Gastric Adenocarcinoma SGC-7901 Cells. Asian Pac J of Cancer Prevention **2011**; 12 (5): 1219-1223. IF: 1.50.
79. [Azhar Rasul](#), Bo Yu, Long-Fei Yang, Muhammad Ali, Muhammad Khan, Tonghui Ma, Hong Yang. Induction of mitochondria-mediated apoptosis in human gastric adenocarcinoma SGC-7901 cells by kuraridin and Nor-kuraridinone isolated from Sophora flavescens. Asian Pac J Cancer Prev. **2011**;

12(10): 2499-504. IF: 1.50.

80. Ali Al Shawi, **Azhar Rasul**, Muhammad Khan, Furhan Iqbal, Ma Tonghui. Eupatilin: A flavonoid compound isolated from the artemisia plant, induces apoptosis and G2/M phase cell cycle arrest in human melanoma A375 cells. African Journal of Pharmacy and Pharmacology. **2011**; 5(5): 582-588. IF: 1.20.
81. Muhammad Naeem, **Azhar Rasul**, Abdus Salam, Shahid Iqbal, Abir Ishtiaq, Muhammad Khalid, Mohammad Athar. Proximate analysis of female population of wild feather back fish (Notopterus notopterus) in relation to body size and condition factor. African Journal of Biotechnology. **2011**; 10(19): 3867-3871. IF: 1.08
82. Muhammad Khan, **Azhar Rasul**, Fei Yi, Lili Zhong, Tonghui Ma. Jaceosidin induces p53-dependent G2/M phase arrest in U87 glioblastoma cells. Asian Pac J Cancer Prev. **2011**; 12(12): 3235-3238. IF: 1.50.

Oral Presentations

- Oral Presentation at “A Short Course on Cancer Biology” organized by MMG, Punjab University, Lahore, Pakistan on 12-14th Feb, 2019.
- Oral Presentation at Symposium on Emerging Trends on Biochemistry, organized by GCWUF, in Faisalabad, Pakistan on 8- 9th May, **2018**.
- Oral Presentation at International Conference on Innovation and Commercialization of Biotechnology Conference (ICICB), organized by PCSIR, in Lahore, Pakistan on 25- 26th April, **2018**.
- Oral Presentation at South Asian Biotechnology Conference (SABC), organized by NASSL and ICGEB, in Colombo, Sri Lanka on 28- 30th March, **2018**.
- Oral Presentation at “1st International Conference: Advances in Drug Discovery and Development” organized by Department of Biochemistry, Abdul Wali Khan University, Mardan on 3-5th January, **2018**.
- Oral Presentation at 9th International Symposium on the Chemistry of Natural Compounds, 2011 Urumqi, Xinjiang, China on **2011**.
- Oral Presentation at Young Talent Forum for the 2016 Digestive Disease Week of Guangzhou, China on **2016**

Poster Presentations

Azhar Rasul, Bo Yu, Kun Zhang, Long-Fei Yang, Muhammad Khan, Tonghui Ma, Hong Yang,

Enhancement of Docetaxel Anticancer Activity by Tubeimoside-1 in Human Gastric Cancer via Mitochondrial, PI3K/Akt, and NF- κ B Signaling Pathways, 4th International Cancer Control Congress, Seoul, South Korea; 2011 (Poster Presentation).

Azhar Rasul, Tonghui Ma, Augmentation of TRAIL-induced apoptosis by Tubeimoside-1 in Human Gastric Cancer Cells via inhibition of PI3K/Akt, and NF- κ B Signaling Pathways, 4th International WIN Symposium, Paris, France; 2012 (Poster Presentation).

Books

Muhammad Ali, **Azhar Rasul**, Ghulam Mustafa, Shazia Anwar Bukhari. A Practical Manual of “Experimental Biochemistry and Biotechnology (Series-II)”

Books Edited

Udedi, Ifemeje, Egbuna, Shah, Patrick-Iwuanyanwu, Rasul: Analytical Techniques in Biosciences: From Basics to Applications, Elsevier Inc. Publishers, Cambridge, MA 02139, USA

Book Chapters

1. **Azhar Rasul** and Tonghui Ma (2013). Natural Compounds and Their Role in Autophagic Cell Signaling Pathways, Autophagy - A Double-Edged Sword - Cell Survival or Death?, Dr. Yannick Bailly (Ed.), ISBN: 978-953-51-1062-0, InTech, DOI: 10.5772/55447.
2. Ijaz Rasul, , Farrukh Azeem, Muhammad Hussnain Siddique, Saima Muzammil, **Azhar Rasul**, Anam Munawar, Muhammad Afzal, Muhammad Amjad Ali, Habibullah Nadeem (2017). Algae biotechnology: A green light for engineered algae. “ALGAE-BASED POLYMERS, BLENDS AND COMPOSITES” published by “Elsevier”
3. Muhammad Afzaal, Safdar Ali Mirza, Miuniza Mir, Sarfraz Ahmed, **Azhar Rasul**, Shabab Nasir, Muhammad Yasir Waqas, Ummad ud din Umar. (2018) Antibiotics and Resistant Genes in Paddy Soil, Environmental Pollution of Paddy Soils, pp 99-112
4. Muhammad Kashif Zahoor, **Azhar Rasul**, Muhammad Asif Zahoor, Iqra Sarfraz, Muhammad Zulhussnain, Rizwan Rasool, Humara Naz Majeed, Farhat Jabeen and Kanwal Rania (2018) Dengue Fever - a Resilient Threat in the Face of Innovation, Dengue Fever: A General Perspective published by “Intech Open”

List of Submitted Papers:

1. **Azhar Rasul**, Makoto Kawatani, Makoto Muroi, Yushi Futamura, Harumi Aono, Miho Tanaka, Hiroyuki Osada, Discovery and characterization of novel microtubule disrupter by MorphoBase and ChemProteoBase Profiling. Submitted to Biochemical Journal.
2. **Azhar Rasul**, Makoto Kawatani, Makoto Muroi, Yushi Futamura, Amit Subedi, Hiroyuki Osada, Identification and characterization of novel small-molecule inhibitor of DNA topoisomerase I. Submitted to BMB Reports.
3. **Azhar Rasul**, Makoto Kawatani, Kondoh, Hiroyuki Osada, Discovery of selective inhibitors of malic enzyme 2, novel therapeutic target for cancer metabolism, by chemical array screening. Submitted to Cell Chemical Biology.
4. **Azhar Rasul**, Muhammad Ali, Hiroyuki Osada, Imperatorin: A multifunctional natural compound with potential anti-cancer, anti-oxidant and anti-inflammatory activities (Review). Submitted to International Journal of Biological Sciences.
5. Iqra Sarfraz, **Azhar Rasul***, Ammara Riaz, Zinayyera Subhani, Ghulam Hussain, Farhat Jabeen, Muhammad Ali. A review on phyto-pharmacology of *Oxalis corniculata*. Submitted
6. Sitong Liu, **Azhar Rasul**, Maria Javeed, Ghulam Hussain, Haseeb Anwar, Iqra Sarfraz, Ammara Riaz, Bushra Nageen, Ayesha Sadiqa, Tian Qin, Xiaomeng Li, Xueqi Fu. Biochanin A: A Phytochemical Endeavor Fortifying Effect Against Cancer, International Journal of Biological Sciences, IF: 4.057, 2019, Accepted.
7. Bushra Nageen, **Azhar Rasul***, Ghulam Hussain, Farhat Jabeen, Tahira Younis, Iqra Sarfraz, Jassia Bukhari, Muhammad Ali, Jaceosidin: A Novel Natural Flavone with Promising Anti-inflammatory and Anti-cancer Effects. (***As a corresponding Author**).
8. Naseem Akhtar, Iqra Sarfraz, **Azhar Rasul***, Ghulam Hussain, Muhammad Kashif Zahoor, Ghazala Kaukab, Ammara Riaz, Zeliha Selamoglu, Muhammad Ali. Osthole: A Multifunctional Natural Compound with Potential Anticancer, Antioxidant and Anti-inflammatory Activities. (***As a corresponding Author**).

Invited Talks at National and International Conference/ Forums/Seminars

- 1st Interdisciplinary International Symposium for Young Researchers and Students, Informatics Groups of Colleges, Arifwala on 24th December, 2019
- 1st International One Day Symposium on “Development of Anti-cancer Agents” University of Sargodha on 16th December, 2019
- 1st International symposium on “Recent Trends in Development of Anti-cancer Agents”, Department of Zoology, GCUF, Layyah Campus on 9th December, 2019.
- International Symposium on “Advances in Chemical Sciences”, BZU, Multan on 05th December, 2019
- One Day International Seminar on “Applications of Phytochemicals for Cancer Treatment”, GC University Lahore, November 28, 2019
- 1st International One Day Symposium on Recent Trends in Development of Chemotherapeutics, Department of Chemistry, GC University Faisalabad on November 26, 2019
- “A Short Course on Cancer Biology” MMG, Punjab University, Lahore, Pakistan on 12-14th Feb, 2019.
- “International Congress on Biological and Medical Sciences” October 31st -November 3rd 2018 in Nigde, Turkey.
- Young Talent Forum for the 2016 Digestive Disease Week of Guangzhou, China
- Seminar at School of Life Sciences, Dalian Medical University (DMU), Dalian, China, 2016
- 1st International Conference on Emerging Trends in Zoology (1st ICETZ 2017), University of Sargodha (UOS), Sargodha, Punjab Pakistan (December 8-9, 2017)
- The International Congress on Biological and Medical Sciences 2018, Nigde, Turkey

Seminars/ Conferences/ Workshop Organized

- Organizer of 2ND International Conference on Applied Zoology, **19-20 December, 2019**, Government College University Faisalabad.
- Organizer of Two Days 6th Paleontology Seminar, **13-14 December, 2019**, Department of Zoology, Government College University Faisalabad.
- Co-Organizer of One Day International Seminar on Nutraceuticals and Health, **December 5, 2019**, Department of Pharmacy, Forman Christian College, Lahore

- Chief organizer of One Day Workshop on Biosafety and Biosecurity for Young Researchers, at Department of Zoology, Government College University Faisalabad. **March 26, 2018**
- Principle Organizer of One Day International Seminar on Aging Long term Hidden Cost of Infectious Diseases at Department of Zoology, Government College University Faisalabad. **August 6, 2019**
- Organizer of One Day Training Workshop on Primer Designing Tool & Troubleshooting, at Department of Physiology, Government College University Faisalabad. **October 17, 2019**
- Organizer of One Day International Symposium on Recent Trends in Development of Chemotherapeutics, at Department of Chemistry, Government College University Faisalabad. **November 26, 2019**
- Co-Organizer of One Day International Seminar on Nutraceuticals and Health, at Forman Christian College Lahore. **December 6, 2019**
- Organizer of One Day International Symposium on Intellectual Disabilities and Brain Health Organized by Department of Biochemistry, Government College University Faisalabad. **December 13, 2019**
- Organizer of 2nd International Conference on Applied Zoology, ICAZ 2019 Organized by Department of Zoology, Government College University Faisalabad. **December 19-20, 2019**

Self-assessment

I have more than ten year's research experience in the field of cancer chemical biology. Four years of hard work during my PhD has let me become the person who has the ability to handle the different cellular and molecular biology techniques. Besides this, my performance has been improved as one of a basic science researcher. I think my greatest strongpoint is the excellent adaptability. I can acclimatize myself to the new circumstances in a short time and exert all my strengths towards work. I believe that the good professional ability is the foundation of achievement and the problem handling. The ability of study and the spirit of innovation guarantee my adaptability to various work environments. I also believe that this is a higher requirement for the field of the scientific research. The independent life since childhood developed my endurance and the spirit of toughness. Motility during pressure ensures my ability of facing difficulties. In addition, I am also a good cooperator and team leader. Obtaining the success is my greatest satisfaction.

Professional Contributions

- **Lead Guest Editor:** Frontiers in Endocrinology
- **Lead Guest Editor:** Advances in Pharmacological Sciences
<https://www.hindawi.com/journals/aps/psi/>
- **Editor:** Peak Journal of Biotechnology
<http://www.peakjournals.org/journals/pjb/board.html>
- **Editorial Board Member:** Asian Journal of Natural & Applied Sciences (AJSC), Japan
<http://www.ajsc.leena-luna.co.jp/board.php>
- **BBE2017 as a TPC (Technical Program Committee) member:** The 2nd International Conference on Biomedical and Biological Engineering (BBE2017), Guilin, China, May 26th-28th, 2017.
<http://www.bbe2017.org/?op=committee>

Scientific Societies Memberships

- European Society for Medical Oncology (ESMO) Switzerland
- Asian Pacific Organization of Cancer Prevention (APOCP) Korea
- National Academy of Young Scientist (NAYS) Pakistan
- Asia-Pacific Chemical, Biological & Environmental Engineering Society (APCBEEES) Membership NO.: 100624, Thailand.
- An associate member of the World Academy of Sciences (WAS), 10 Vriaxidos Street, Pagkrati, Athens, Greece
- Society for Medicinal Plant and Natural Product Research (G.A.) Gesellschaft für Arzneipflanzen- und Naturstoff-Forschung e.V, Muenster, Germany
- Federation of European Biochemical Societies (FEBS), Membership Number: 01046940, UK
- Biochemical Society; Membership Number: 01046940, UK
- International Society for Infectious Diseases (ISID), USA
- Middle East Molecular Biology Society (MEMBS); Membership Number: A001759, Doha, Qatar.
- International Chemical Biology Society, USA
- Life member of Pakistan Society for Biochemistry and Molecular Biology (PSBMB), Lahore, Pakistan

Research Areas of Interest

- Cancer stem cells: new target for drug discovery
- Tumor hypoxia: a target for selective cancer therapy
- Cancer cell metabolism: novel and selective target for cancer therapy
- Development of tumor-stromal cell interactions targeting agents for tumor metastasis therapeutics
- Production of recombinant proteins---rDNA Technology

Research Projects/Grants as Principal Investigator

Sr. No.	Project Title	Duration	Total Amount of Grant	Funding Agency	Present Status
1	Targeting NF- κ B and STAT3 by small molecules	November 28 th , 2013 – November 27 th 2015	3.0 million JPY	Japan Society for Promotion of Science (JSPS), Tokyo Japan	Completed
2	Targeting cancer cell metabolism by small molecules	April 1 st 2016 – March 31 st 2017	3.0 million JPY	Tokyo Biochemical Research Foundation (TBRF), Tokyo Japan	Completed
3	Development of Potent and Selective Tumor Glycolysis Inhibitors from Natural Products as Lead Structures.	March 8 th , 2017- To date	600,000JPY/570 ,000PKRs	The Nagai Foundation Tokyo, Japan- Grant Award_NFT-R4	In progress
4	Identification and Characterization of Tumor-Stromal Cell Interactions Modulators – A Promising Novel Therapeutic Approach.	December 19 th 2018 – To date	8000US\$/ 880,000PKRs	TWAS-COMSTECH Research- Grant Award_17 180RG/PH/AS_C-FR3 240300069	In progress
5	Targeting the metabolic reprogramming of cancer cells by small molecule-mediated inhibition of Malic Enzymes 2 (ME2).	March 20 th 2018 – To date	400,000JPY/413 ,000PKRs	The Nagai Foundation Tokyo, Japan-Grant Award_NFT-R4-2018	In progress
6	Identification and characterization of cancer stem cells and cancer metabolism	June 12 th 2018 – To date	3.9 Millions PKRs	Higher Education Commission (HEC) under National University Research	In progress

	reprogramming inhibitors from natural products as lead structures			Program 8381/Punjab/NRPU/R &D/HEC/2017	
7	Development of potent and selective tumor stromal cell interaction modulators from natural products as lead structures	June 12 th 2018 – To date	5.4 Millions PKRs	Higher Education Commission (HEC) under National University Research Program 8382/Punjab/NRPU/R &D/HEC/2017	In progress
8	Determining the mechanism of action of a novel human 6 phosphogluconate dehydrogenase (h6PGD) specific inhibitor that kills chemo-resistant cancer cells	November 14 th 2018 – To date	10000US\$	Head of ICPSR – ISESCO, Avenue des F.A.R – P O Box 2275 – Code 10104, Hay, Ryad, Rabat, Kingdom of Morocco	In progress
9	Targeting the Energy Metabolism with Dietary Nutrients for Cancer Treatment	February 26 th 2019 – To date	1,425,000 PKR	Higher Education Commission (HEC) under Pak-Turk Researchers Mobility Grant Program (Phase II) – 2017	In progress

Supervision:PhD students (As a supervisor): **03**PhD students (As a member): **04****List of PhD Students**

Sr. No.	Name of student (Session)	Registration/ Roll No.	Thesis Title	Role As.	Status
1	Ammara Riaz (2016-2019)	2012-GCUF-01400 /3816	Identification and characterization of natural compounds against Human Triple Negative Breast Cancer via targeting STAT3 pathway and Pyruvate Kinase M2	Supervisor	In progress
2	Nazia Kanwal (2017-2020)	2017-GCUF-01680	Identification and Characterization of Natural Compounds to eradicate Human Colorectal Cancer via Targeting PGAM1 and ROS metabolism	Supervisor	In progress
3	Rabia Zara	2018-GCUF-00041 4	Development of potent and selective tumor stromal cell interaction modulators from natural products as lead structures	Supervisor	In progress
3	Syed Kashif Shahid Kamran (2015-2018)	2012-GCUF-01400	Exploration and characterization of potentially effective selected plants to promote the functional recovery against mechanically induced nerve injury in mouse model	Supervisor-II	In progress
4	Gul Bushra (2017-20120)	2011-GCUF-01003	Identification and characterization of plant derived natural compounds against prostate cancer via simultaneous targeting of NF-kB and STAT3 pathway	Supervisor-II	In progress
5	Muhammad Ramzan (2013-2016)	2013-GCUF-16451 61	Evaluation of Phytochemical appraisal: Anti-oxidant, Anti-microbial and Anti-cancer Potential of Selected Plants Used in Pakistan Traditional Medication	Supervisor-II	In progress
6	Nagina Rehman (2015-2018)	2015-GCUF- 1008 /	Investigation of Zinc Oxide nanoparticles (ZnO-NPs) induced toxicity in Male Sprague Dawley Rats and antagonistic effect of <i>Allium sativum</i> and <i>Camellia sinensis</i> extracts	Member	In progress
7	Mehwish (2015-2018)	2015-GCUF- 1006	Investigation of Zinc Oxide nanoparticles (ZnO-NPs) induced toxicity in Male Sprague Dawley Rats and antagonistic effect of <i>Allium sativum</i> and <i>Camellia sinensis</i> extracts	Member	In progress

List of MPhil Students

MPhil Students (As a supervisor): 17

M Phil Students (Thesis Completed): 13

M Phil Students (Thesis In Progress): 4

Sr. No.	Name of student (Session)	Registration/ Roll No.	Thesis Title	Role As.	Status
1	Fariha Rukhsar (2016-2018)	2014-GCUF-012108 /3837	Purification of Human 6-Phosphogluconate Dehydrogenase (h6PGD) from <i>Escherichia coli</i> and development of 6-PGD enzymatic activity assay	Supervisor	Completed
2	Salman Akram (2016-2018)	2016-GCUF-00223 /3834	Evaluation of plant extracts as supplementary feeds on gene expression of GH, IGF-1, growth performance and body composition in <i>Cirrhinus mrigala</i>	Supervisor	Completed
3	Bisma Saleem (2016-2018)	2016-GCUF-09730 /100230	Evaluation of <i>in vitro</i> cytotoxic activity of Eriocalyxin B against Human Triple Negative Breast cancer (TNBC), MDA-MB231 Cells	Supervisor	Completed
4	Aiza Ajaz (2016-2018)	2012-GCUF-13451 /100220	Study on cytotoxic potential of mushroom derived natural compound, Hispolon, against Human Hepatocellular Carcinoma (HepG2) cells	Supervisor	Completed
5	Savera Safdar (2016-2018)	2017-GCUF-000896 /811	Evaluation of methanolic extract of chick pea (<i>Cicer arietinum</i>) on growth of liver and colon cancer cells.	Supervisor	Completed
6	Rubab Ishfaq (2016-2018)	2017-GCUF-000762 /801	Evaluation of cytotoxic effect of <i>Cassia fistula</i> extracts and its underlying molecular mechanism on Hepatocellular cancer (HepG2) cells	Supervisor	Completed
7	Muhammad Mateen Tahir (2016-2018)	2017-GCUF-000892 /804	Evaluation of cytotoxicity and mode of action of the methanolic extract of <i>Eucalyptus camaldulensis</i> against human colon cancer cells	Supervisor	Completed
8	Ayesha Sadiqa	2017-GCUF-000734 /821	Study on exploration of antiproliferative activity of methanolic extract the <i>Carica papaya</i> leaves against human liver cancer cell line	Supervisor	Completed
9	Muhammad Adnan	2017-GCUF-000734 /821	Study on Cytotoxic Effect and Mode of Action of Physcion against Hormonal-Dependent Human Breast Cancer (MCF7) Cells	Supervisor	Completed
10	Muhammad Arif	2017-GCUF-010944	Study on exploration of antiproliferative	Supervisor	Completed

	(2017-2019)	/25518	activity of methanolic extract of the leaves of <i>Nerium oleander</i> against human colon cancer (HCT-116) cells		
11	Muhammad Shahbaz (2017-2019)	2017-GCUF-012766 /25531	Elucidation of the cytotoxic potential of methanolic extract of <i>Chenopodium album</i> against human hepatocellular carcinoma (HepG2) cells	Supervisor	Completed
12	Muhammad Obaid Ullah (2017-2019)	2017-GCUF-013005 /25542	Evaluation of methanolic extract of red silk cotton (<i>Bombax ceiba</i>) on growth of human breast cancer cells	Supervisor	Completed
13	Nighat Kalsoom (2017-2019)	2017-GCUF-013005 /25542	Evaluation of anticancer activity of mango and its apoptotic potential using gene expression analysis.	Supervisor	Completed
14	Mudassir Hassan (2018-2020)	2018-GCUF-000160	Assessment of antioxidant, antimicrobial and anti-breast cancer efficacy of extracts of <i>Morchella esculenta</i> and <i>Macrolepiota procera</i>	Supervisor	In progress
15	Somia Khan (2018-2020)	2018-GCUF-11239	Evaluation of Cytotoxic Potential of Rhinacanthin Rich Extract and its Marker Compound Against Human Breast Cancer (MCF-7) Cells.	Supervisor	In progress
16	Mehwish Iftikhar (2018-2020)	2018-GCUF-11376	Exploration of Phytochemical, Antibacterial, and Antipancreatic Cancer Potential of Extract and Fractions of <i>Lawsonia inermis</i> Leaves	Supervisor	In progress
17	Javaria Nawaz (2018-2020)	2018-GCUF-010654	Investigation of anti-microbial, and anti-estrogen dependent breast cancer (MCF-7) activity of <i>Solanum nigrum</i> and its derived compounds	Supervisor	In progress

List of MPhil Students

MPhil Students (As a supervisor II): 22

M Phil Students (Thesis Completed): 22

M Phil Students (Thesis In Progress):

Sr. No.	Name of student (Session)	Registration/ Roll No.	Thesis Title	Role As.	Status
1	Bushra Nageen (2016-2018)	2012-GCUF-01401 /3818	Cloning, expression and purification of Human Aldolase A (hmALDOA) protein and screening for its inhibitors by enzymatic assay	Supervisor-II	Completed
2	Maria Javed (2016-2018)	2012-GCUF 01414 /3825	Screening of methanolic extract of <i>Dalbergia sissoo</i> bark for cytotoxic effects	Supervisor-II	Completed

			against hepatocellular carcinoma (HepG2) cells		
3	Rashid Adil (2016-2018)	2016-GCUF-010276/ 100216	Investigation of anti-cancer activity and its underlying molecular targets of <i>Citrullus colocynthis</i> plant extract against hepatic cancer cell line	Supervisor-II	Completed
4	Muhammad Azam (2016-2018)	2016-GCUF-00223 /3834	Evaluation of cytotoxic effect of <i>Calotropis procera</i> extracts and its underlying molecular mechanism on Hepatocellular carcinoma (HepG2) cells	Supervisor-II	Completed
5	Sumaira Parveen (2016-2018)	2012-GCUF-02517	Study on the exploration of the therapeutic potential of <i>Withania somnifera</i> against peripheral nerve injury in mouse model	Supervisor-II	Completed
6	Hafiz Muhammad Mansoor (2016-2018)	2016-GCUF- 000331	Elucidation of the therapeutic effects of <i>Neurada procumbins</i> against peripheral nerve injury in mouse model	Supervisor-II	Completed
7	Aroona Razzaq (2016-2018)	2012-GCUF-02520	Investigation of the therapeutic role of <i>Strychnos nux vomica</i> against induced peripheral nerve injury in mouse model	Supervisor-II	Completed
8	Waseem Ahmad	2012-GCUF-02548	Evaluation of the remedial potential of <i>Foeniculum vulgare</i> against induced peripheral nerve injury in mouse model	Supervisor-II	Completed
9	Mariyam Zahid	2016-GCUF-010062	Synthesis of S-alkylated derivatives of oxadiazole by using quaternary ammonium salts	Supervisor-II	Completed
10	Ummara Rabbani	2016-GCUF-09788	Synthesis and characterization of pyridine based quaternary ammonium salts	Supervisor-II	Completed
11	Amna Shahzadi	2016-GCUF-010063	Synthesis of N-alkylated derivatives of imidazoles by using various quaternary ammonium salts	Supervisor-II	Completed
12	Nadia Afzal	2016-GCUF-09789	Synthesis of S-alkylated derivatives of 2 thiobenzimidazole by using quaternary ammonium salts	Supervisor-II	Completed
13	Iqrash Haider	2012-GCUF-06243	Computational study of boron dipyrromethene derivatives as photosensitizer	Supervisor-II	Completed
14	Adil Anwar	2012-GCUF-010077	A Quantum mechanical study of Porphyrin based dyes as photosensitizer for photodynamic therapy applications	Supervisor-II	Completed
15	Rabia Batool (2016-2018)	2017-GCUF-000734 /821	A comparative study on <i>in vitro</i> cytotoxic potential of different parts of <i>Albizia lebbeck</i> against human hepatocellular cancer cells	Supervisor II	Completed

16	Iqra Sarfraz (2016-2018)	2012-GCUF-01400 /3816	Evaluation of voltage gated sodium channel (Vgsc) gene mutation and associated enzyme modulation in Dengue vector <i>Aedes aegypti</i>	Member	Completed
17	Iqra Sadiqa (2016-2018)	2016-GCUF-09844	Prevalence and Genetics Epidemiology of Miscarriages in a Hospital Population of District Gujranwala	Member	Completed
18	Muhammad Adnan Khalid (2016-2018)	2012-GCUF-30654/ 3801	Effects of lycopene supplementation on antioxidant activity, hematology, nutrient digestibility and growth of major carps fingerlings fed canola meal-based diet	Member	Completed
19	Tahira Parveen	2011-GCUF-03656/	Effect of Citric acid supplementation on growth performance and nutrient digestibility of <i>Cyprinus carpio</i> fingerlings fed cotton seed meal based diets	Member	Completed
20	Muhammad Sajid (2016-2018)	2014-GCUF-010847	Effects of Organophosphate toxicity of biochemical parameters of human population	Member	Completed
21	Nasira Rasheed (2016-2018)	2016-GCUF- 09841/ 100212	Genetic epidemiology of poly cystic ovarian syndrome in District Sargodha	Member	Completed
22	Zakia Azad (2016-2018)	2016-GCUF- 09841/ 100212	Genetic epidemiology of poly cystic ovarian syndrome in District Nankana	Member	Completed

Higher Education Commission of Pakistan: Approved Supervisor since March 4, 2018

Teaching and course training

- Course developed:

Zoo-?- Chemical Biology (at the Dept. of Zoology, GCUF, Faisalabad)

- Courses taught:

Government College University, Faisalabad, Pakistan)

- **Zoo-704**-Advances in Recombinant DNA Technology and associated Lab- (MPhil/MS level)
- **Zoo-705**-Advances in Biotechnology and associated Lab- (MPhil/MS level)
- **Zoo-756**-Research Methodology (MSc level)
- **Zoo-301**- Principle in Animal Life and associated Lab (BS level)

(at the Dept. of Zoology, Government College University, Faisalabad, Pakistan)

Administrative Responsibilities

- ❖ In-Charge Research Lab at Department of Zoology, Government College University, Faisalabad
- ❖ In-Charge Cell Culture Lab at Department of Zoology, Government College University, Faisalabad
- ❖ Member of “HEC Patents Support Program” Committee at Government College University, Faisalabad Since May 16, 2018
- ❖ Member of Internal PhD Assessment Committee at Department of Zoology, Government College University, Faisalabad
- ❖ Member of MS/PhD Thesis Scrutiny Committee at Department of Zoology, Government College University, Faisalabad Since July 26, 2017
- ❖ Member of Organizing Committee 4th International Conferences of Zoology (December 14-15, 2017), at Department of Zoology, Government College University, Faisalabad

Collaborations

- ❖ Prof. Dr. Li Xiaomeng Li, Key Laboratory of Molecular Biology, Institute of Genetics and Cytology, School of Life Sciences, Northeast Normal University (NENU), Changchun Jilin Province, China. Email: lixm441@nenu.edu.cn
- ❖ Prof. Dr. Tong-Hui Ma, School of Basic Life Sciences, Dalian Medical University (DMU), Dalian Liaoning Province, China
- ❖ Dr. Maria Pascual López-Alberca, Associate Research Scientist, Centre for Drug Discovery, Northeastern University, 360 Huntington Avenue Boston, MA. Email: mpascualla@gmail.com
- ❖ Dr. Lai Ngit Shin, Senior Lecturer, Institute for Research in Molecular Medicine (INFORMM) Universiti Sains Malaysia (USM), 11800 USM, Penang, Malaysia. E-mail: laingitshin@usm.my; Tel: +6046534862; Fax: +6046534803
- ❖ Prof. Dr. Hiroyuki Osada, Director, Chemical Biology Research Group (CBRG), RIKEN, Wakoshi, Saitama, Japan
- ❖ Prof. Dr. Zeliha Selamoglu, Nigde Ömer Halisdemir University, Faculty of Medicine, Department of Medical Biology, Nigde, 51240 Turkey. Email: Phone: +90-388-2253123; Fax: +90-388-2252582
- ❖ Dr. Muhammad Muddassar, Assistant Professor, Email: mmuddassar@gmail.com

References

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<http://scholar.google.com.hk/citations?user=JJcEv0EAAAJ&hl=en>